

LISTING OF THE CLAIMS

1. (Currently amended) A method for servicing email at a client of a sender of an email comprising:

receiving a request at the client of the sender to send the email to a recipient, the email containing a main body and one or more attachments and the recipient having an incoming email server for receiving at least a portion of the email;

determining at the client of the sender whether ~~the email to be sent includes one or more attachments;~~

determining whether a ~~the~~ recipient of the email has a corresponding distributed storage separate from an ~~the~~ incoming email server of the recipient for storing email attachments, if the email to be sent includes one or more attachments;

determining ~~a network address of the recipient's distributed storage for storing email attachments, if the recipient has such distributed storage;~~

determining at the client of the sender an availability of whether the recipient's distributed storage based on determining the recipient has a corresponding distributed storage is available to receive the one or more attachments upon determining the network address;

if the recipient has the available corresponding distributed storage for storing email attachments and the distributed storage is available to accept said one or more attachments;

sending ~~a the~~ main body of the email from the client of the sender to the incoming email server of the recipient; and

Type of Response: Amendment  
Application Number: 09/915,096  
Attorney Docket Number: 302375.02  
Filing Date: 07/25/2001

~~sending an instruction to the recipient's distributed storage to submit a request for the one or more attachments of the email; and upon receipt of such a request, sending the one or more attachments of the email from the client of the sender to the recipient's corresponding distributed storage for email; otherwise, sending the main body of the email and the one or more attachments from the client of the sender to the incoming email server.~~

2. (Currently amended) The method of claim 1, wherein said determining of whether the recipient of the email has a corresponding distributed storage separate from ~~an the incoming email server of the recipient for storing email attachments~~ comprises querying a recipient email distributed storage location server.

3. (Currently amended) The method of claim 1, further comprising wherein said determining of the a network address of the recipient's distributed storage for storing email attachments and ~~comprises~~ querying a recipient email distributed storage location server.

4. (Currently amended) The method of claim 1, wherein said determining of ~~whether the recipient's distributed storage is available to receive the one or more attachments~~ the availability comprises pinging the recipient's email distributed storage using said determined network address.

5. – 8. (Canceled)

Type of Response: Amendment  
Application Number: 09/915,096  
Attorney Docket Number: 302375.02  
Filing Date: 07/25/2001

9. (Currently amended) The method of claim 1, further comprising sending the main body of the email and the one or more attachments of the email to the incoming email server of the recipient if the recipient has distributed storage but the distributed storage is not available ~~to accept said one or more attachments.~~

10. (Currently amended) The method of claim 1, further comprising sending the main body of the email and the one or more attachments of the email to the incoming email server of the recipient if the recipient does not have the distributed storage ~~for email attachments.~~

11. – 12. (Canceled)

13. (Currently amended) A method for servicing email at a server comprising:

receiving at the server an email on behalf of a recipient, the email including a main body and one or more attachments;

transmitting a query to a storage location server;

responsive to the transmitting, if the recipient has a distributed storage for storing email attachments, receiving from the storage location server a network address of the ~~determining whether the recipient of the email has distributed storage for storing email attachments corresponding to the recipient,~~ otherwise receiving a first indication that the recipient does not have a distributed storage ~~by querying a recipient email distributed storage location server;~~

~~determining a network address of the recipient's distributed storage for storing email attachments, if the recipient has such distributed storage;~~

Type of Response: Amendment  
Application Number: 09/915,096  
Attorney Docket Number: 302375.02  
Filing Date: 07/25/2001

~~receiving determining~~—periodically a second indication for indicating availability of whether the recipient's distributed storage is available to receive the one or more attachments upon determining the network address;

~~sending an instruction to the recipient's distributed storage to submit a request for the one or more attachments of the email; and~~

~~upon such a request,~~ sending the one or more attachments of the email to the recipient's distributed storage for email attachments based on receiving the network address and the second indication.

14. (Canceled)

15. (Currently amended) The method of claim 13, wherein said ~~determining of the network address of the recipient's distributed storage for storing email attachments comprises querying a recipient email distributed storage location server~~the recipient includes an incoming email server separate from the distributed storage and wherein responsive to receiving the first indication, sending the main body and the one or more attachments of the email to the incoming email server.

16. (Currently amended) The method of claim 13, wherein the network address is received from the storage location server and wherein the second indication is received responsive to ~~wherein said determining of whether the recipient's distributed storage is available to receive the one or more attachments comprises~~—pinging the recipient's email distributed storage using ~~said determined~~ the network address.

17. – 18. (Canceled)

19. (Currently amended) A method for an email distributed storage location server, comprising:

receiving a ~~registration~~ first request at a distributed storage location server;  
~~registering to register a an email user's~~ distributed storage of an email user  
~~responsive to the first request, the distributed storage for storing email attachments of~~  
~~the email user, said user being a part of a peer to peer communication system, the~~  
~~registering including;~~ storing an identifier of the email user and a corresponding  
~~network address of the email user's distributed storage for email attachments of the~~  
email user;

receiving a second request from a requestor for the network address of the ~~email~~  
~~user's distributed storage of the for email attachments~~ user; and

providing the requestor with the network address ~~of the email user's distributed~~  
~~storage for email attachments.~~

20. (Previously Presented) The method of claim 19, wherein the requestor is a sender of an email.

21. (Previously Presented) The method of claim 19, wherein the requestor is an email server associated with an email recipient.

22. (Canceled)

23. (Currently amended) A method for servicing email at a client of a recipient of an email comprising:

receiving at the client of the recipient of the email a request from a user in a peer-to-peer communication system to access an attachment of an email;

determining accessibility of whether a distributed storage for storing email attachments for the user;

determining if is accessible and, if so, whether the attachment is stored in said distributed storage; and

if the distributed storage is accessible and contains the attachment, retrieving the attachment from the distributed storage, otherwise if the attachment is stored by the distributed storage and retrieving the attachment from an incoming email server, the incoming email server being separate from if the attachment is not stored by the distributed storage.

24. (Currently amended) The method of claim 23, wherein said determining accessibility of whether the user's the distributed storage for email attachments is accessible comprises pinging the user's distributed storage for email attachments.

25. (Currently amended) The method of claim 23, wherein said retrieving the attachment further comprises retrieving the attachment from the user's distributed storage for storing email attachments if the user's distributed storage for storing email attachments is accessible, and the attachment is stored in the user's distributed storage for storing email attachments.

26. (Currently amended) The method of claim 23, wherein retrieving the attachment further comprises retrieving the attachment from an incoming email server of the user if the user's distributed storage for storing email attachments is accessible, and the attachment is not stored in the user's distributed storage for storing email attachments.

27. (Currently amended) The method of claim 23, wherein retrieving the attachment further comprises attempting to retrieve the attachment from an incoming email server of the user if the ~~user's~~ distributed storage for storing email attachments is not accessible.

28. (Currently amended) An apparatus comprising:  
a storage medium having stored therein a plurality of executable programming instructions that, when executed, perform the following steps for servicing email at a client of a sender of an email:

receiving a request to send an email to a recipient in a peer-to-peer communication system, the email containing a body and one or more attachments;

~~determining whether the email to be sent includes one or more attachments;~~

identifying an incoming email server corresponding to the recipient;

~~identifying whether the recipient of the email has a distributed storage of the recipient separate from an the incoming email server of the recipient for storing email attachments by querying a recipient email distributed storage location server, if the email to be sent includes one or more attachments;~~

~~determining a network address of the recipient's distributed storage for storing email attachments, if the recipient has such distributed storage;~~

determining availability of ~~whether the recipient's distributed storage is~~ available to receive the one or more attachments ~~upon determining the network address; and~~

~~transmitting the servicing said request to send said email~~ based at least in part on the results of said ~~determinations~~ determination; and a processor coupled to the storage medium to execute the programming instructions.

29. (Previously Presented) The apparatus of claim 28, wherein said programming instructions are further configured to send the one or more attachments of the email to the recipient's distributed storage, if the recipient has distributed storage for storing email attachments, and the distributed storage is available to accept said one or more attachments.

30. (Previously Presented) The apparatus of claim 28, wherein said programming instructions are further configured to send an instruction to the recipient's distributed storage to submit a request for the one or more attachments of the email, if the recipient has distributed storage for storing email attachments, and the distributed storage is available to accept said one or more attachments.

31. (Previously Presented) The apparatus of claim 30, wherein said programming instructions are further configured to send the one or more attachments of the email to the recipient's distributed storage for email attachments upon receipt of a request from the recipient's distributed storage for the one or more attachments of the email.

32. (Previously Presented) The apparatus of claim 28, wherein said programming instructions are further configured to retry to send the one or more attachments of the email to the recipient's distributed storage in accordance with a retry

Type of Response: Amendment  
Application Number: 09/915,096  
Attorney Docket Number: 302375.02  
Filing Date: 07/25/2001



policy, if the recipient has distributed storage and the distributed storage is not immediately available to accept said one or more attachments.

33. (Previously Presented) The apparatus of claim 28, wherein said programming instructions are further configured to send the one or more attachments of the email to the incoming email server of the recipient if the recipient has distributed storage and the distributed storage is not available to accept said one or more attachments.

34. (Previously Presented) The apparatus of claim 28, wherein said programming instructions are further configured to send the one or more attachments of the email to the incoming email server of the recipient if the recipient does not have distributed storage for email attachments.

35. (Previously presented) An apparatus comprising:  
a storage medium having stored therein a plurality of executable programming instructions that, when executed, perform the following steps for servicing email at a client in a peer-to-peer communication system:

receiving at the client an email on behalf of a recipient, the email including a main body and one or more attachments;

determining whether the recipient of the email has distributed storage for storing email attachments by querying a recipient email distributed storage location server;

determining a network address of the recipient's distributed storage for storing email attachments, if the recipient has such distributed storage;

periodically determining whether the recipient's distributed storage is available to receive the one or more attachments upon determining the network address; and

sending the one or more attachments of the email to the recipient's distributed storage for email attachments for storage, upon determining that the recipient's distributed storage for email attachments is available to accept email attachments; and

a processor coupled to the storage medium to execute the programming instructions.

36. (Previously Presented) The apparatus of claim 35, wherein said programming instructions are further configured to send an instruction to the recipient's distributed storage for email attachments, instructing the recipient's distributed storage for email attachments to submit a request for the one or more attachments of the email.

37. (Previously presented) The apparatus of claim 36, wherein said programming instructions are further configured to [[to]] enable the apparatus to send the one or more attachments of the email to the recipient's distributed storage for email attachments upon receipt of a request from the recipient's distributed storage for the one or more attachments of the email.

38. (Currently amended) An apparatus comprising:  
a storage medium having stored therein a plurality of executable programming instructions that, when executed, perform the following steps for providing an email

distributed storage location server capability at a client in a peer-to-peer communication system:

~~receiving a registration first request at a distributed storage location server~~

~~registering to register an email user's a distributed storage of an email user responsive to the first request, the distributed storage for storing email attachments of the email user, the registering including: storing an identifier of the email user and a corresponding network address of the email user's distributed storage for email attachments of the email user;~~

~~receiving a second request from a requestor for the network address of the email user's distributed storage of the for email attachments user; and~~

~~providing the requestor with the network address of the email user's distributed storage for email attachments; and~~

a processor coupled to the storage medium to execute the programming instructions.

39-40. (Canceled)

41. (Currently amended) An apparatus comprising:

a storage medium having stored therein a plurality of executable programming instructions that, when executed, perform the following steps for servicing email at a client of a recipient of an email in a peer-to-peer communication system:

receiving a request from a user to access an attachment of an email;

determining whether a distributed storage for storing email attachments for the user is accessible;

Type of Response: Amendment  
Application Number: 09/915,096  
Attorney Docket Number: 302375.02  
Filing Date: 07/25/2001

determining whether the attachment is stored in said distributed storage if said distributed storage is accessible; and

~~servicing said request to access~~ accessing said attachment of said email at said distributed storage if the distributed storage is accessible and contains the attachment, otherwise accessing the attachment ~~or~~ at an incoming email server; and

a processor coupled to the storage medium to execute the programming instructions.

42. (Previously presented) The apparatus of claim 41, wherein the programming instructions are further configured to ping the user's distributed storage for email attachments to determine whether the user's distributed storage for email attachments is accessible.

43. (Previously presented) The apparatus of claim 41, wherein the programming instructions are further configured to perform the servicing of said request by retrieving the attachment from the user's distributed storage for storing email attachments if the user's distributed storage for storing email attachments is accessible, and the attachment is stored in the user's distributed storage for storing email attachments.

44. (Previously presented) The apparatus of claim 41, wherein the programming instructions are further configured to perform the servicing of said request by retrieving the attachment from an incoming email server of the user if the user's distributed storage for storing email attachments is accessible, and the attachment is not stored in the user's distributed storage for storing email attachments.

Type of Response: Amendment  
Application Number: 09/915,096  
Attorney Docket Number: 302375.02  
Filing Date: 07/25/2001

45. (Previously presented) The apparatus of claim 41, wherein the programming instructions are further configured to perform the servicing of said request by attempting to retrieve the attachment from an incoming email server of the user if the user's distributed storage for storing email attachments is not accessible.

Type of Response: Amendment  
Application Number: 09/915,096  
Attorney Docket Number: 302375.02  
Filing Date: 07/25/2001